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EXAMINER
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WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/08/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/392,445

Applicant(s)

MISAWA, TAKESHI

Examiner

Jason T. Whipkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The replacement drawing sheet was received on December 24, 2003. The drawing is approved and the corresponding objection withdrawn.

### *Specification*

2. The objection to the title of the invention is withdrawn.

### *Response to Arguments*

3. Applicant's arguments filed December 24, 2003, have been fully considered but they are not persuasive.

Regarding the rejection of claim 1, the Applicant asserts that the examiner has failed to establish a *prima facie* case of obviousness for several reasons. The examiner disagrees.

First, the Applicant speciously argues that in the No reference, "the digital camera 3 does not have an opening at a location corresponding to a back side of the transmission-type liquid crystal panel" (p. 15, para. 2). This limitation, however, is not present in the claims. Claim 1 recites a "memory card including an image memory ... a transmission-type display panel ... and a case for accommodating said image memory and said display panel, said case having an opening at a location corresponding to a back side of said transmission-type display panel." In

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other words, the claim is drawn to a memory card that is comprised of a case that houses an image memory and display panel. As the claim is currently drafted, the case is *not* part of the camera, but rather the memory card. In fact, the Applicant does not use the word “case” in the specification to denote any part of the invention other than the “shell” housing the image memory and display panel. See, for example, page 9, line 9 of the specification. Since No does not disclose an opening in the memory card’s case for a light source to illuminate the liquid crystal panel, the examiner cited Maeda as a secondary reference.

Second, the Applicant argues that, “Since the front bezel 1B of Maeda is not a memory card, there is little relevance in Maeda to the claimed invention” (p. 16, para. 3). The examiner disagrees. Given that No, as the primary reference, is drawn to the same field of endeavor as the instant application — namely, a memory card for a camera that includes an LCD display — one of ordinary skill in the art would look to the LCD art for additional teachings about liquid crystal displays. The Maeda reference clearly falls within the bounds of LCD art, so it has relevance to the instant application.

Third, the Applicant argues that the examiner impermissibly utilized Official Notice to provide motivation for combining references, despite the fact that Official Notice cannot be used as such (p. 16, para. 4). The examiner disagrees with the Applicant’s assertion that Official Notice was used to provide motivation. On the contrary, the examiner used Official Notice (p. 4, para. 1, of the Office action) to simply provide the definition of a transmission-type liquid crystal display, since such a definition was not explicitly provided in the Maeda reference. The examiner intentionally placed the motivation to combine the references (“An advantage to ...”)

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in a paragraph separate from the paragraph in which Official Notice was taken in order to isolate the motivation from the Official Notice.

Fourth, the Applicant argues that — in contradiction of the assertion that Official Notice was used to provide motivation to combine No and Maeda — “the *only* motivation to combine has been gleaned from the teachings of the present application” (p. 17, para. 3; emphasis added). As described above, given that No is drawn to the same field of endeavor as the instant application — namely, a memory card for a camera that includes an LCD display — one of ordinary skill in the art would look to the LCD art, such as the Maeda reference, for additional teachings about liquid crystal displays. Specifically, Maeda teaches that having an opening in an apparatus that holds an LCD allows an external light source to act as a backlight. See, for example, Figure 12 and column 1, lines 59-64. The examiner asserts that this teaching would lead one of ordinary skill in the art to illuminate other LCDs, such as the LCD in the memory card disclosed by No, using a rearward opening.

Fifth, the Applicant asserts that the examiner “purports a common sense and common knowledge reason for the deficiencies of No, in other words, stating that No would have suggested a similar technique” (p. 20, para. 3). This is a complete mischaracterization of what was written in the Office action. Rather than relying on common sense and common knowledge, the examiner relies on the teachings of Maeda. Using the knowledge gleaned from Maeda, one of ordinary skill in the art would have modified No. No does not disclose Applicant’s invention *per se*; rather, the combination of No and Maeda lead to the invention. One cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The examiner disagrees with the Applicant's assertion that the rejection of claim 9 is "based on a feature that is not in the claim" (p. 26, para. 2) and finds this argument to be spurious and not dispositive to the case. Clearly, a battery is a chargeable power supply and a charging controller is a "charging circuit ... supplied with a voltage ... in response to detection of insertion of said memory card ... for charging said power supply".

#### ***Claim Rejections - 35 U.S.C. § 103***

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 5, 11-15, and 17-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over No (U.S. Patent No. 6,587,140) in view of Maeda (U.S. Patent No. 6,072,465).

Regarding claims 1 and 4, No shows in Figure 1 a digital camera 3 ("a digital image processing device") with CCD 33 ("an electronic image receiving element") that accepts a memory card 7 (Figure 3). Card 7 is detachably connected to camera 3 (column 2, lines 56-57) via card-receiving slot 38 ("a receiving area") (column 3, line 21). Card 7 stores image data generated by camera 3 in DRAM 98 ("an image memory") (column 4, lines 45-52). A liquid

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crystal display screen 108 ("a transmission-type display") is included in the case encapsulating card 7 for displaying image data stored in DRAM 98 (column 5, lines 16-17 and 47-48). Though it is not explicitly stated, it is inherent that digital camera 3 has an analog-to-digital converter ("a processing circuit") between CCD 33 and card 7, since digital cameras inherently output digital signals.

No is silent with regard to including a transmission-type LCD that has an opening in the back, wherein the camera illuminates the opening.

Maeda discloses a portable information processing apparatus that has a removable liquid crystal display (Figure 1B). The LCD is integrally formed within front bezel 1B and is transparent (column 12, lines 39-41; column 13, lines 1-4). Front bezel 1B may be removed from the information processing apparatus via rear cover 1D (column 13, lines 1-4). A cold cathode ray tube ("a light source") is housed in center bezel 1C for irradiating the LCD when it is inside the information processing apparatus.

Official Notice is taken that transmission-type liquid crystal display is minimally comprised of a back-lit LCD, which inherently includes an opening for the illumination to enter.

An advantage to using an LCD panel that is removable from a housing that contains an illumination source is that alternative sources of illumination may be used, such as the overhead projector shown in Figure 12. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card include an opening in the rear for use with an illuminating light.

Regarding claim 5, Maeda is silent with regard to including a diffusion plate on the back of the LCD panel.

Official Notice is taken that diffusion plates are commonly used with LCDs. An advantage to attaching a diffusion plate to an LCD is that the LCD can be illuminated smoothly and evenly, regardless of slight imperfections in the illumination source. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's LCD panel include a diffusion plate.

Regarding claims 11 and 20, No teaches that part 38 is a "card-receiving slot" (column 3, lines 21).

Regarding claims 12, 17, 19, and 22, No teaches that the device includes a digital camera (see title).

Regarding claim 13, No teaches that the camera operates using the JPEG still image compression algorithm (column 4, lines 35-38).

Regarding claim 14, No teaches that the card includes a liquid crystal image display 104 (column 4, lines 63-65).

Regarding claim 15, Official Notice is taken that transmission-type liquid crystal display is minimally comprised of a back-lit LCD, which inherently includes an opening for the illumination to enter. Maeda teaches that the LCD is illuminated by a cold cathode ray tube in center bezel 1C for irradiating the LCD when it is inside the information processing apparatus (column 1, lines 45-46).

Regarding claim 18, No shows in Figure 1 a digital camera 3 ("an imaging device") that accepts a memory card 7 (Figure 3). Card 7 is detachably connected to camera 3 (column 2, lines 56-57) via card-receiving slot 38 ("a memory card receiving area") (column 3, line 21). Card 7 stores image data generated by camera 3 in DRAM 98 ("an image memory") (column 4,



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lines 45-52). A liquid crystal display screen 108 (“a display”) is included in the case that encapsulates card 7 for displaying image data stored in DRAM 98 (column 5, lines 16-17 and 47-48). No is also capable of displaying images when card 7 is not connected to camera 3 — i.e., when card 7 is attached to printer 5 (column 5, lines 52-60).

No is silent with regard to including a transmission-type LCD that has an opening in the back, wherein the camera illuminates the opening.

Maeda discloses a portable information processing apparatus that has a removable liquid crystal display (Figure 1B). The LCD is integrally formed within front bezel 1B and is transparent (column 12, lines 39-41; column 13, lines 1-4). Front bezel 1B may be removed from the information processing apparatus via rear cover 1D (column 13, lines 1-4). A cold cathode ray tube (“a light source”) is housed in center bezel 1C for irradiating the LCD when it is inside the information processing apparatus.

Official Notice is taken that transmission-type liquid crystal display is minimally comprised of a back-lit LCD, which inherently includes an opening for the illumination to enter.

An advantage to using an LCD panel that is removable from a housing that contains an illumination source is that alternative sources of illumination may be used, such as the overhead projector shown in Figure 12. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No’s memory card include an opening in the rear for use with an illuminating light.

Regarding claim 21, No teaches that card 7 stores image data generated by camera 3 in DRAM 98 (“an image memory”) (column 4, lines 45-52).

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6. Claims 2, 6, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over No in view of Maeda and further in view of Kimura (U.S. Patent No. 5,016,223).

Claim 2 may be treated like claim 1. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Kimura discloses a memory card circuit 22 (Figure 1) that receives a power supply input 14 and an extraction signal 24 generated by card insertion and extraction signal generator 25, which is part of a terminal unit (column 4, lines 50-53; column 5, lines 3-5). The terminal unit generates the signal in response to the detection of the memory card (column 8, lines 20-24). Extraction signal 24 prompts the memory card to turn on and off its internal battery 6 (column 4, lines 57-61).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card receive a power supply control signal from its docking device, similar to Kimura's system.

Claim 6 may be treated like claim 4. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Kimura discloses a memory card circuit 22 (Figure 8) that receives a power supply input 14 from a terminal unit (column 1, lines 60-64). The presence of this power supply input (and accordingly, the connection to the terminal unit) is detected by diode 4, which causes the card's internal power supply 15 to be disabled (column 1, lines 63-68).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card disable power upon detection of a connection with its docking device, similar to Kimura's system.

Regarding claim 16, No teaches that part 38 is a "card-receiving slot" (column 3, lines 21). No inherently has some way to detect the presence of the card in the card-receiving slot, because otherwise his invention would be inoperable.

7. Claims 3 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over No in view of Maeda and further in view of Kimura and Yoshimura (U.S. Patent No. 5,950,013).

Claim 3 may be treated like claim 1. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Kimura discloses a memory card circuit 22 (Figure 1) that receives a power supply input 14 and an extraction signal 24 generated by card insertion and extraction signal generator 25, which is part of a terminal unit (column 4, lines 50-53; column 5, lines 3-5). The terminal unit generates the signal in response to the detection of the memory card (column 8, lines 20-24). Extraction signal 24 prompts the memory card to turn on and off its internal battery 6 (column 4, lines 57-61).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to

one of ordinary skill in the art at the time of invention to have No's memory card receive a power supply control signal from its docking device, similar to Kimura's system.

Both No and Kimura are silent with regard to including a chargeable battery charged by a charging controller.

Yoshimura shows a memory card 135 in Figure 36 that includes power switching section 72 for charging battery 71 (column 28, lines 50-55). Power switching section 72 receives power from host system apparatus 76 (column 28, lines 50-55), so it is inherent that charging only occurs when memory card 135 is connected to host system apparatus 76.

An advantage to recharging a battery in a memory card upon connection to a system is that data storage and processing may occur for a longer length of time after the disconnection of the memory card. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery upon connection with the host camera, such as in the way described by Yoshimura.

Yoshimura is silent with regard to including power switching section 72 ("a charging controller") within host system apparatus 76. However, an advantage to doing so is that the size memory card 135 could be reduced, thus making the card more portable. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery using a charging controller located in the host camera.

Regarding claim 9, both No and Kimura are silent with regard to including a chargeable battery charged by a charging controller.

Yoshimura shows a memory card 135 in Figure 36 that includes power switching section 72 for charging battery 71 (column 28, lines 50-55). Power switching section 72 receives power

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from host system apparatus 76 (column 28, lines 50-55), so it is inherent that charging only occurs when memory card 135 is connected to host system apparatus 76.

An advantage to recharging a battery in a memory card upon connection to a system is that data storage and processing may occur for a longer length of time after the disconnection of the memory card. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery upon connection with the host camera, such as in the way described by Yoshimura.

8. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over No in view of Maeda and further in view of Oda (U.S. Patent No. 5,490,117).

Claim 7 may be treated like claim 4. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Oda discloses an integrated circuit card, as shown in Figure 1. External power line 20 provides a power supply from the host system (column 10, lines 10-14), while an internal power supply (not shown) supplies power via internal power line 21 (column 9, lines 55-58). High-voltage detection circuit 130 detects a voltage from (and therefore the presence of) a connection to the host system (column 10, lines 29-34). High-voltage detection circuit 130 can cause the system to turn on the power supply in response (column 10, lines 44-50).

As stated in column 4, lines 28-34, an advantage to turning on a power supply in response to the connection of a memory card to a host is that the controller can check for an appropriate power supply voltage, thus protecting the system. For this reason, it would have been obvious to

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one of ordinary skill in the art at the time of invention for No's camera to turn on a power supply in a memory card after it has detected a connection to a host, such as in the manner described by Oda.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Oda and Kimura.

Claim 8 may be treated like claim 7. However, No is silent with regard to using a power-on controller for controlling the memory card's power supply.

Kimura discloses a memory card circuit 22 (Figure 1) that receives a power supply input 14 and an extraction signal 24 generated by card insertion and extraction signal generator 25, which is part of a terminal unit (column 4, lines 50-53; column 5, lines 3-5). The terminal unit generates the signal in response to the detection of the memory card (column 8, lines 20-24). Extraction signal 24 prompts the memory card to turn on and off its internal battery 6 (column 4, lines 57-61).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card receive a power supply control signal from its docking device, similar to Kimura's system.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Oda and Yoshimura.

Claim 10 may be treated like claim 7. However, No is silent with regard to including a chargeable battery charged by a charging controller.

Yoshimura shows a memory card 135 in Figure 36 that includes power switching section 72 for charging battery 71 (column 28, lines 50-55). Power switching section 72 receives power from host system apparatus 76 (column 28, lines 50-55), so it is inherent that charging only occurs when memory card 135 is connected to host system apparatus 76.

An advantage to recharging a battery in a memory card upon connection to a system is that data storage and processing may occur for a longer length of time after the disconnection of the memory card. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery upon connection with the host camera, such as in the way described by Yoshimura.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 C.F.R. § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason T. Whipkey, whose telephone number is (703) 305-1819. The examiner can normally be reached Monday through Friday from 8:30 A.M. to 6:00 P.M. eastern standard time, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTW

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April 5, 2004

  
NGOC-YEN VU  
PRIMARY EXAMINER